

CLAIMS LISTING

1. (currently amended) A method for the detection of ~~small~~
~~quantities of particles by the detection of antigen-~~
antibody precipitates concentration which comprises:
providing a sample fluid that ~~essentially~~ contains
~~particles~~ antigens with a given maximum particle size,
the ~~particles~~ antigens having at least two antibody
binding sites;
providing a fluid containing antibodies that ~~essentially~~
~~contains particles having~~ have a given maximum
particle size;
contacting the sample ~~fluid~~ with the fluid containing the
antibodies, which yields a reaction ~~fluid~~ mixture
where in the presence of ~~particles~~ antigens having at
least two antibody binding sites the antibodies can
form an antigen-antibody precipitate;
directing a light beam through the reaction ~~fluid~~ mixture;
detecting a signal by measuring with a photodetector the
extinction at the light-dark boundary of the cone of
light that is produced when the light generated by the
laser is passing through ~~the~~ a measuring cell

containing the reaction ~~fluid~~ mixture, the signal strength depending on the size and number of antigen-antibody precipitates formed.

2.(currently amended) The A method according to claim 1, wherein the sample ~~fluid~~ contains ~~particles~~ antigens with a concentration in the order of magnitude of femtograms or attograms per liter.

3.(currently amended-withdrawn) The A method of claim 1 or 2 ~~according to any of the preceding claims~~, wherein the step of providing a sample ~~fluid~~ that ~~essentially~~ contains ~~particles~~ antigens having a given maximum particle size comprises:

a) providing a ~~fluid~~ liquid,

introducing a sample component into the ~~fluid~~ liquid, and separating ~~particles~~ antigens that exceed a given particle size, in order to obtain a sample fluid that ~~essentially~~ contains only ~~particles~~ antigens having a given maximum particle size, or

b) providing a second fluid that ~~essentially~~ contains ~~particles~~ antigens having a given maximum particle size and

introducing a second sample component into the ~~fluid~~
liquid that ~~essentially~~ contains ~~particles~~ antigens
having a given maximum particle size, in order to
obtain a sample ~~fluid~~ that ~~essentially~~ contains
~~particles~~ antigens having a given maximum particle
size.

4.(currently amended-withdrawn) The A method of claim 1 or 2
~~according to any of the preceding claims,~~ wherein the
separation of the ~~particles~~ antigens having a size
exceeding the given maximum particle size is effected by
filtration, the filter having a pore size of preferably 20
- 450 nm, more preferably of 100 - 300 nm, and particularly
of 200 nm.

5.(currently amended) The A method of claim 1 or 2 ~~according~~
~~to any of the preceding claims,~~ wherein antibodies comprise
at least one antibody selected from a ~~two~~ monoclonal
~~antibodies~~ antibody and a ~~or one~~ polyclonal antibody ~~are~~
~~employed as antibodies.~~

6.(currently amended) The A method of claim 1 or 2 ~~according~~
~~to any of the preceding claims,~~ wherein the antibody is

selected from the group consisting of immunoglobulin G ~~or~~
and immunoglobulin M.

7.(currently amended) The A method of claim 1 or 2 according
~~to any of the preceding claims,~~ wherein the method allows
the quantity of ~~particles~~ antigens to be detected
quantitatively or semiquantitatively.

8.(currently amended) The A method of claim 1 or 2 according
~~to any of the preceding claims,~~ wherein, at a constant
concentration of antibodies, the decrease of the measured
signal is directly related to the concentration of
antigens.

9.(currently amended-withdrawn) A computer program product
comprising program code means stored in a computer readable
medium, for carrying out the method according to ~~any of the~~
claim 1 or 2 ~~to 8~~ when the computer program product is
executed on a computer, a network device or a device,
particularly an analytical detection device.

10.(currently amended-withdrawn) A computer program product
comprising a program code downloadable from a server, for
carrying out the method according to ~~any of the~~ claim 1 or
2 ~~to 8~~ when the computer program product is executed on a

computer, a network device or a device, particularly an analytical detection device.

11.(cancelled)

12.(cancelled)